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elf atochem

ELF ATOCHEM NORTH AMERICA, INC.
900 First Avenue, P.O. Box 1536
King of Prussia, PA 19406-0018

Tel: 215-337-6500

OTS DOCUMENT RECEIPT DESK

92 OCT -8 AM 7:59

(A)

8EHQ-92-12667

88920010846

INIT

September 8, 1992

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Document Processing Center (TS-790)
Office of Toxic Substances
U.S. Environmental Protection Agency
401 M St., S.W.
Washington, D.C. 20460

Attn: Section 8(e) Coordinator (CAP Agreement)

RE: Report Submitted Pursuant to the TSCA Section 8(e) Compliance Audit Program

CAP Identification Number: 8ECAP-0026

Dear Sir/Madam:

Pursuant to the Toxic Substances Control Act (TSCA) Section 8(e) Compliance Audit Program and the Agreement for TSCA Section 8(e) Compliance Audit Program (CAP Agreement) executed by Elf Atochem North America Inc. (Atochem) and Environmental Protection Agency (EPA), Atochem is submitting the enclosed final report on a study to establish the acute oral LD_{50} of t-amyl mercaptan to the EPA. This study does not involve effects in humans.

Nothing in this letter or the enclosed study report is considered confidential business information of Atochem.

The enclosed study report provides information on the chemical t-amyl mercaptan. Its exact chemical name is 2-butanethiol, 2-methyl and its CAS number is 1679-09-0.

The title of the enclosed study report is t-Amyl Mercaptan #2319 Toxicology Report. This report consists of five studies. The following is a summary of the adverse effects observed in the acute oral toxicity study.

t-Amyl mercaptan was administered by gavage to groups of six male albino rats at dosages of 2000 and 5000 mg/kg. The oral LD_{50} was determined to be greater than 5000 mg/kg. Within 3 hours of test material administration, motor depression, ataxia and loss of righting reflex were

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2/9/95

observed in test animals; volitional tremors occurred 24 hours after administration.

To our knowledge, Atochem has not previously submitted any TSCA Section 8(e) notices or premanufacture notifications on the subject chemical.

Further questions regarding this submission may be directed to me at 215 337-6892.

Sincerely,

C.H. Farr, PhD, DABT
Manager, Product Safety
and Toxicology

Enclosures

PMN: 2835-85

TR 77-124
(S-821)

On Microfilm

TOXICOLOGY REPORT (3)
FOR PENNWALT CORPORATION

RE: T-AMYL MERCAPTAN #2319 (SAMPLE No. 101-TAM-72).

A MALODOROUS, CLEAR, COLORLESS LIQUID; AMBIENT D = 0.817 G/ML.

SUMMARY. (1) ACUTE ORAL TOXICITY IN RATS: LD_{50} = >5000 MG/KG.

(2) INHALATION TOXICITY IN RATS: NONTOXIC AT 20 MG/LITER.

(3) DERMAL TOXICITY IN RATS: NONTOXIC AT 2000 MG/KG.

(4) EYE IRRITANCY IN RABBITS: CONJUNCTIVITIS.

(5) DoT SKIN CORROSIVITY IN RABBITS: NONCORROSIVE, NONIRRITATING.

NOTE SOME OF THESE STUDIES ARE LIMITED IN SCOPE BECAUSE OF UNAVOIDABLE FOULING OF THE ATMOSPHERE BY THIS MALODOROUS, VOLATILE LIQUID.

(1) ACUTE ORAL TOXICITY IN RATS.

METHOD. THE UNDILUTED SAMPLE WAS ADMINISTERED BY STOMACH TUBE. EACH OF SIX ALBINO RATS (♂ WBS/W, 180± G BW) WAS GIVEN 2000 MG/KG AND EACH OF SIX ADDITIONAL RATS WAS GIVEN 5000 MG/KG. THE ANIMALS WERE THEN OBSERVED FOR SEVEN DAYS.

RESULTS.

ORAL DOSE MG/KG	NO. RATS DEAD/TOTAL	MORTALITY	TIME FOR DEATH HOURS
2000	0 / 6	0 %	- - - - - -
5000	1 / 6	17 %	- - - - - 4

SYMPTOMATOLOGY. EARLY (<3 HRS): MOTOR DEPRESSION, HYPOTONIA, ATAXIA, LOSS OF RIGHTING REFLEX.
LATE (24 HRS): HYPERTONIA, VOLITIONAL TREMOR, RHINOCHROMORRHEA, POOR GROOMING.

SURVIVORS SHOWED SIGNIFICANT LOSSES IN BODY WEIGHT FOR 24 OR 48 HOURS BUT THESE WERE RECOVERED WITHIN 5 DAYS.

(2) INHALATION TOXICITY IN RATS.

METHOD. TWO RATS (♂ WBS/W, 160± G BW) WERE PLACED IN EACH OF THREE 20-LITER EXPOSURE CHAMBERS. 0.490 ML (400 MG) OF SAMPLE WAS DEPOSITED UPON A DISC OF FILTER PAPER SUSPENDED IN EACH CHAMBER AND THE LATTER PROMPTLY SEALED AIRTIGHT. (THE LIQUID WAS SEEN TO EVAPORATE WITHIN ONE MINUTE YIELDING A VAPOR CONCENTRATION OF 20 MG/LITER.) THE ANIMALS WERE REMOVED ONE HOUR LATER AND OBSERVED FOR SEVEN DAYS.

RESULTS. MOTOR ATAXIA APPEARED IN ALL ANIMALS DURING EXPOSURE AND NORMALCY WAS RAPIDLY RESTORED AFTER EXPOSURE WAS TERMINATED. MINOR LOSSES IN BODY WEIGHT OCCURRED OVERNIGHT BUT THESE WERE RECOVERED 48 HOURS AFTER TREATMENT.

(CONTINUED)

CAS 1679-09-0

(3) DERMAL TOXICITY IN RATS.

METHOD. EACH OF SIX ALBINO RATS (♂ WBS/W, 200± G BW) WAS TREATED DERMALLY WITH A SINGLE DOSE OF 2000 MG/KG (2.45 ML/KG). INDIVIDUAL DOSES WERE APPLIED TO THE HAIR-CLIPPED SKIN OF THE TRUNK UNDER A PRE-FITTED OCCLUDING SLEEVE ON EACH ANIMAL. THE SLEEVES WERE REMOVED 24 HOURS LATER AND THE ANIMALS WERE OBSERVED FOR SEVEN DAYS.

RESULTS. INITIAL SKIN CONTACT EVOKED A SEVERE PAIN REACTION.

ALTHOUGH THE ANIMALS REMAINED TOXICOLOGICALLY ASYMPTOMATIC MOST SHOWED LOSSES IN BODY WEIGHT 24 HOURS AFTER TREATMENT; THESE WERE RECOVERED ONE OR TWO DAYS LATER.

(4) EYE IRRITANCY IN RABBITS.

METHOD. ONE-TENTH ML OF SAMPLE WAS PLACED IN THE CONJUNCTIVAL SAC OF ONE EYE OF EACH OF SIX ALBINO RABBITS. THE RESULTING IRRITANT REACTIONS WERE SCORED UNTIL RECOVERY.

RESULTS. THE ONLY REACTION WAS CONJUNCTIVAL INFLAMMATION WITH SLIGHT CHEMOSIS; NORMALCY RETURNED WITHIN FOUR DAYS. NEITHER THE CORNEA NOR THE IRIS WAS EFFECTED.

INDIVIDUAL CONJUNCTIVAL REDNESS (R) AND CHEMOSIS (CH) SCORES WERE AS FOLLOWS:

TIME	#1		#2		#3		#4		#5		#6	
	R	CH	R	CH	R	CH	R	CH	R	CH	R	CH
10 MIN	<2	1	<2	1	2	1	2	1	<2	0	2	1
1 HR	2	1	2	1	2	1	2	1	<2	0	2	1
2 HRS	2	1	2	1	2	1	2	1	<2	0	2	1
3 HRS	2	1	2	1	2	1	2	1	2	1	2	1
4 HRS	2	1	2	1	2	1	2	1	2	1	2	1
24 HRS	>1	0	>1	0	1	0	1	0	>1	0	>1	0
48 HRS	>0	0	1	0	>0	0	>0	0	1	0	1	0
72 HRS	0	0	0	0	0	0	0	0	1	0	1	0
4 DA									0	0	0	0

(5) DoT SKIN CORROSIVITY IN RABBITS.

METHOD. AS PRESCRIBED IN 49 CFR 173.240 (SIX ALBINO RABBITS, FOUR HOUR SKIN-CONTACT TIME, THREE DAYS OBSERVATION).

RESULTS. NO SIGNS OF IRRITATION WERE DISCERNIBLE AT ANY OF THE TREATED SKIN SITES AT ANY TIME.

PHARMACOLOGY RESEARCH, INC.

BY A. R. LATVEN 5/17/77

PROTOCOL REFS: PR#77.5341; (1) ARL 34, 73; (2) DO 67; (3) DO 65; (4) RS 6, 69; (5) DO 63.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

C. H. Farr, PhD, DABT
Manager, Product Safety and Toxicology
Atochem North America, Inc.
900 First Avenue
P.O. Box 1536
King of Prussia, Pennsylvania

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MAR 20 1995

EPA acknowledges the receipt of information submitted by your organization under Section 8(e) of the Toxic Substances Control Act (TSCA). For your reference, copies of the first page(s) of your submission(s) are enclosed and display the TSCA §8(e) Document Control Number (e.g., 8EHQ-00-0000) assigned by EPA to your submission(s). Please cite the assigned 8(e) number when submitting follow-up or supplemental information and refer to the reverse side of this page for "EPA Information Requests".

All TSCA 8(e) submissions are placed in the public files unless confidentiality is claimed according to the procedures outlined in Part X of EPA's TSCA §8(e) policy statement (43 FR 11110, March 16, 1978). Confidential submissions received pursuant to the TSCA §8(e) Compliance Audit Program (CAP) should already contain information supporting confidentiality claims. This information is required and should be submitted if not done so previously. To substantiate claims, submit responses to the questions in the enclosure "Support Information for Confidentiality Claims". This same enclosure is used to support confidentiality claims for non-CAP submissions.

Please address any further correspondence with the Agency related to this TSCA 8(e) submission to:

Document Processing Center (7407)
Attn: TSCA Section 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Washington, D.C. 20460-0001

EPA looks forward to continued cooperation with your organization in its ongoing efforts to evaluate and manage potential risks posed by chemicals to health and the environment.

Sincerely,

Terry R. O'Bryan

Terry R. O'Bryan
Risk Analysis Branch

Enclosure 12667A

Triage of 8(e) Submissions

SEP 15 1995

Date sent to triage: _____

NON-CAP (CAP)

Submission number: 12667A

TSCA Inventory: (Y) N D

Study type (circle appropriate):

Group 1 - Dick Clements (1 copy total)

ECO AQUATO

Group 2 - Ernie Falke (1 copy total)

(ATOX) SBTOX SEN (w/NEUR)

Group 3 - Elizabeth Margosches (1 copy each)

STOX CTOX EPI RTOX GTOX

STOX/ONCO CTOX/ONCO IMMUNO CYTO NEUR

Other (FATE, EXPO, MET, etc.): _____

Notes:

THIS IS THE ORIGINAL 8(e) SUBMISSION; PLEASE REFILE AFTER TRIAGE DATABASE ENTRY

For Contractor Use Only

entire document: (0) 1 2 **pages** 1,2 **pages** 1-4

Notes:

Contractor reviewer : UPS **Date:** 2/16/95

CECATS\TRIAGE TRACKING DBASE ENTRY FORM

CECATS DATA:
Submission # 8EHQ- 1092 -12667 SEQ. A

TYPE: (INT.) SUPP FLWP

SUBMITTER NAME: EIF Atochem North America, Inc.

INFORMATION REQUESTED: FLWP DATE:
0501 NO INFO REQUESTED
0502 INFO REQUESTED (TECH)
0503 INFO REQUESTED (VOL ACTIONS)
0504 INFO REQUESTED (REPORTING RATIONALE)

DISPOSITION:
(0639) REFER TO CHEMICAL SCREENING
(0678) CAP NOTICE

VOLUNTARY ACTIONS:
(0401) NO ACTION REPORTED
0402 STUDIES PLANNED/UNDERWAY
0403 NOTIFICATION OF WORKERS/USERS
0404 LABEL/MSDS CHANGES
0405 PROCESS/HANDLING CHANGES
0406 APP/USE DISCONTINUED
0407 PRODUCTION DISCONTINUED
0408 CONFIDENTIAL

SUB. DATE: 09/08/92 OTS DATE: 10/08/92 CSRAD DATE: 02/09/95

CHEMICAL NAME:

CAS#
1679 -09-0

INFORMATION TYPE:		P F C
0201	ONCO (HUMAN)	01 02 04
0202	ONCO (ANIMAL)	01 02 04
0203	CELL TRANS (IN VITRO)	01 02 04
0204	MUTA (IN VITRO)	01 02 04
0205	MUTA (IN VIVO)	01 02 04
0206	REPRO/TERATO (HUMAN)	01 02 04
0207	REPRO/TERATO (ANIMAL)	01 02 04
0208	NEURO (HUMAN)	01 02 04
(0209)	NEURO (ANIMAL)	01 02 04
0210	ACUTE TOX. (HUMAN)	01 02 04
0211	CHR. TOX. (HUMAN)	01 02 04
(0212)	ACUTE TOX. (ANIMAL)	01 02 04
0213	SUB ACUTE TOX (ANIMAL)	01 02 04
0214	SUB CHRONIC TOX (ANIMAL)	01 02 04
0215	CHRONIC TOX (ANIMAL)	01 02 04

INFORMATION TYPE:		P F C
0216	EPI/CLIN	01 02 04
0217	HUMAN EXPOS (PROD CONTAM)	01 02 04
0218	HUMAN EXPOS (ACCIDENTAL)	01 02 04
0219	HUMAN EXPOS (MONITORING)	01 02 04
0220	ECO/AQUA TOX	01 02 04
0221	ENV. OCCC/REL/FATE	01 02 04
0222	EMER INCI OF ENV CONTAM	01 02 04
0223	RESPONSE REQEST DELAY	01 02 04
0224	PROD/COMP/CHEM ID	01 02 04
0225	REPORTING RATIONALE	01 02 04
0226	CONFIDENTIAL	01 02 04
0227	ALLERG (HUMAN)	01 02 04
0228	ALLERG (ANIMAL)	01 02 04
0239	METAB/PHARMACO (ANIMAL)	01 02 04
0240	METAB/PHARMACO (HUMAN)	01 02 04

INFORMATION TYPE:		P F C
0241	IMMUNO (ANIMAL)	01 02 04
0242	IMMUNO (HUMAN)	01 02 04
(0243)	CHEM/PHYS PROP	01 02 04
0244	CLASTO (IN VITRO)	01 02 04
0245	CLASTO (ANIMAL)	01 02 04
0246	CLASTO (HUMAN)	01 02 04
0247	DNA DAM/REPAIR	01 02 04
0248	PROD/USE/PROC	01 02 04
0251	MSDS	01 02 04
0299	OTHER	01 02 04

TRIAGE DATA:

NON-CBI INVENTORY
(YES)
NO

CAS SR

(M TERMINI

ONGOING REVIEW
YES (DROP/REFER)
NO (CONTINUE)
REFER

SPECIES
RBT
RAT

TOXICOLOGICAL CONCERN:
(LOW) all routes
MED
HIGH

USE:

PRODUCTION:

12667A

L

Acute oral toxicity in rats is of low concern. Single oral doses were administered to male albino rats (6/dose) via gavage at levels of 2000 and 5000 mg/kg. No mortalities occurred. Clinical signs of neurotoxicity were observed and include motor depression, ataxia, loss of righting reflex, and tremors. No other study details were provided.

L

Acute inhalation toxicity in rats is of low concern. A single 1-hour exposure of 20,000 mg/m^3 to two male rats resulted in no mortalities. Motor ataxia was observed during exposure, but disappeared after exposure was terminated. No other study details were provided.

L

Acute dermal toxicity in rabbits is of low concern. A single dermal dose of 2000 mg/kg was applied to the skin of six albino rabbits. No mortalities occurred; however, the initial skin contact evoked a severe pain reaction. No other study details were provided.

L

Primary eye irritation in rabbits is of low concern. Mild irritation was observed following placement of the substance into the conjunctival sac of one eye of each of six albino rabbits. The only reaction noted was conjunctival inflammation with slight chemosis; recovery occurred within 4 days. Neither the cornea nor the iris was affected. No other study details were provided.

L

Primary dermal irritation in rabbits is of low concern. No signs of irritation were observed following application of the substance to the skin of six albino rabbits. No other study details were provided.